

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98055-4056**

In the matter of the petition of

Daimler-Benz Aerospace

for an exemption from § 25.562(b)(2) of
the Federal Aviation Regulations

Regulatory Docket No. 27157

GRANT OF EXEMPTION

By letters LREZ1-F849/95 and EZ-863/95-sh dated June 2, 1995, and June 7, 1995, respectively, Messieurs Goße and Krause of the Airworthiness Office, Daimler-Benz Aerospace, Dornier Luftfahrt GmbH, Postfach 1103, Federal Republic of Germany, petitioned for a further extension of a previously granted exemption from the floor distortion test requirements of § 25.562(b)(2) of the Federal Aviation Regulations (FAR). Additional information was provided by Messieurs Krook and Goße in facsimile transmission LREZ-0940/95, dated June 21, 1995, which provided a list of affected airplanes by manufacturer's serial number and U.S. registration number. A further facsimile transmission, LREZ-0942/95, dated June 22, 1995, from Messieurs Krook and Wallwitz, revised the original petition for exemption by reducing the number of affected airplanes from 29 to 26. By facsimile transmission, 23720, dated June 20, 1995, Mr. Mike Maracci of Ipeco Incorporated, 3882 Del Amo Blvd., Torrance, CA, submitted data in support of the Dornier petition. Ipeco is the manufacturer of the pilot and co-pilot seats at issue in this exemption.

Sections of the FAR affected:

Section 25.562(b)(2), as amended by Amendment 25-64, in prescribing the conditions under which seats must be tested, requires, in pertinent part, that where floor rails or floor fittings are used to attach the seating devices to the test fixture, the rails or fittings must be misaligned with respect to the adjacent set of rails or fittings by at least 10 degrees vertically (i.e., out of parallel) with one rolled 10 degrees.

The petitioner's supportive information is as follows:

"During February of this year, our pilot seat vendor Ipeco Europe supported by Dornier, petitioned for the total exemption from the floor deformation requirements quoted above for a design of seat fitted to some 25 aircraft which were currently being used by North American operators (Docket No. 28112).

"As Dornier has now been informed, this petition has been rejected by the FAA and consequently must now, according to the terms of the time limited exemption No. 5704B previously granted, must complete a retrofit programme by 30th June 1995 of all 29 aircraft with seats that fulfill all the regulation requirements.

"The seat vendor has successfully addressed all technical issues concerned with the requalification of their Dornier 328 pilot/co-pilot seats and the petition now being sought is only required to embody the modification to the seat as a result of successful compliance testing.

"The extent of the modifications to the early design of seat have become evident only after the successful testing of a compliant seat and Dornier are petitioning to be allowed to execute the retrofit programme over the next 12 months until 30th June 1996 and in support of their petition offer the following:

- "(i) The compliant seat received approval by the LBA/FAA authorities approximately six weeks before the end of the exemption period. Due to the high proportion of the seat that need replacing, those six weeks were completely insufficient for the necessary parts to be produced and the changes made.

"The seat vendor had been reluctant to commit resources for the production of parts prior to approval being given, as they have in the past been cautioned against implementing activities in advance of certification decision. Such an action embarked upon previously has led to the current situation where requalification has been necessary.

- "(ii) Additional time is necessary for the retrofit programme as more aircraft have been delivered to customers than was originally envisaged due to difficulties experienced in trying to fulfill the requirements, leading to a protracted time of development and testing. A larger amount of modification kits are therefore required and the time to perform the changes to all the sets is obviously greater.

"The seat vendor intends to apply maximum effort to support the retrofit program by manufacturing some 4 aircraft sets of modification kits per month. This, coupled with the vendors commitment to supply Dornier Luftfahrt with 4 aircraft sets of seats per month for new aircraft, means that their production capability is fully utilized.

"(iii) The vendor requires the additional time so that the production of the modification kits can be phased into their programme in a manner that will not disrupt their normal production, thus causing economic hardship or jeopardizing their position in the market place. In order to define their retrofit program the Program Chart is enclosed.

"It is Dornier's submission that the level of safety offered to occupants in the original Do 328 crew seat is still far in excess of that to be found in many aircraft in the same category which are to the previously accepted TSO C39 standard. Whilst appreciating the value in providing the levels of safety required by FAR 25.562, a further twelve months extension for this small number of aircraft would not be detrimental to the public interest.

"Summary

"Dornier Luftfahrt are petitioning for a 12 month allowance to conduct a modification programme to an early design of Dornier 328 crew seat due to the extent of modification required to enable that seat to meet the floor warping requirements of FAR 25.562(b)(2) for the following reasons:

- "(i) The vendor has been unwilling to commit resources into the production of Modification Kits prior to approval of a compliant seat. Notification of approval being received some 6 weeks prior to the original (current is correct) exemption deadline.
- "(ii) The implications on production at the vendor as to the incorporation of 58 modification kits into their schedules are such that it could affect their position in the market place.
- "(iii) The granting of a 12 month implementation allowance would not be detrimental to the public interest as the level of safety offered by the seats currently fitted to the 25 aircraft is far in excess of that currently offered by the majority of operational aircraft.
- "(iv) Granting of re-extension of the exemption No. 5704B until June 30, 1996, is in the public interest as aircraft currently in airline service will be grounded.

"Grounding of aircraft will lead to the following situations:

- Compromise of the competitive position of the affected airlines.
- Serious disruption of flight schedules.
- Disruption and delay to airline passengers.
- Perilous financial penalties for affected airlines, aircraft manufacturer and seat supplier.
- Jeopardy of employment of affected airline personnel."

Ipeco's supportive information is as follows:

"Attached please find a milestone chart that supports Dornier's request for the twelve month exemption referenced above. The milestone chart lists 24 aircraft. An additional 5 shipsets of seats (spares and undefined operators) exist and will be converted by June 30th 1996.

"The conversion kit consists of 100% of the seat structure and approximately 15% of the internal mechanism.

"Estimated time for conversion is 20 hours per seat, the existing seat must be completely broken down and then reassembled on the new structure.

"To facilitate this process Ipeco, in conjunction with Dornier, plans to use existing spare sets on a rotational basis. This will minimize the inconvenience to the airlines , and thereby the traveling public, as they will only have to remove and replace the existing sets with the conforming sets.

"This schedule also takes into account possible delays in operator compliance in returning seats in a timely manner for modification.

"Additional parts may be required due to the possibility of parts breakage during modification and the existing condition of the seats prior to modification. Allowances for these contingencies are also reflected in the chart.

"After a reassessment Ipeco has revised its manufacturing rate for modification kits to 3-5 shipsets per month. This is also reflected in the milestone chart."

The FAA finds, for good cause, that action on this petition should not be delayed by publication and comment procedures for the following reason: (1) Delay in acting on the petition would be detrimental to the operators of the airplane by causing them to ground airplanes while the procedures were being followed, (2) The grounding of the airplanes would cause disruption to the scheduled and unscheduled operations involving these airplanes, and (3) The disruption would, in turn, have a detrimental effect on the traveling public.

The FAA's analysis/summary is as follows:

Exemption No. 5704 was issued on July 30, 1993, in response to the petitioner's failure to observe the floor distortion test requirements defined by the certification basis for the Dornier Model 328 airplane, and in recognition of some confusion at that time regarding the FAA's intended application of those requirements. That exemption allowed the petitioner until June 30, 1994, to develop and retrofit seats complying with the noted requirement. As that deadline neared, and expressing confidence that successful testing was imminent, Dornier then petitioned for a time extension to that exemption. Accordingly, Exemption No. 5704A was issued on June 22, 1994, that granted a time

extension until the requested date of December 31, 1994, for the completion of required activities. Unfortunately type certification testing did not prove successful in the time frame expected and the petitioner was forced to petition for another extension. Exemption No. 5704B was issued on December 20, 1994, that granted a time extension until June 30, 1995.

The seat vendor supplying the seats to Dornier has now successfully certified the pilot seats to § 25.562 including the floor warpage requirements. Seats currently being delivered to Dornier are fully compliant with the requirements of § 25.562. What remains to be done is the retrofit of 25 airplanes delivered to U.S. customers prior to the seat vendor receiving full § 25.562 approval for the seats. With only a few days remaining on the latest time extension for compliance, including retrofit, the petitioner requests one more extension in order for the seat vendor to produce the seat kits necessary to modify the delivered non-compliant seats and for those seats to be removed from the airplanes, modified, and re-installed.

The supplemental information submitted by Ipeco in support of the petition provides credible information regarding the effort required for Ipeco to produce the parts kits and to perform the actual modification on the seats once they have been sent in by the airlines. Considering the scope of work to be done, the FAA considers the one year extension to be a realistic time frame in which to accomplish the retrofit program. In order to ensure that the retrofit program is progressing as proposed by the petitioner, however, Dornier Luftfahrt GmbH will be required to provide this office with progress reports as noted below.

Furthermore, the FAA notes that the applicant's proposed schedule is conservative in that it anticipates a number of possible delays which, if they fail to occur, should allow the completion of the modification well before the one-year expiration date. Therefore, the FAA does not consider that any further extensions will be either necessary or appropriate.

In consideration of the foregoing, I find that a grant of exemption is in the public interest and will not affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of Dornier Luftfahrt for exemption from the floor distortion test requirements of § 25.562(b)(2) of the FAR, for captain's and first officer's set on Dornier Model 328 airplanes, manufacturer's serial numbers listed below, is granted through June 30, 1996. The petitioner shall provide this office a status report of which affected serial number airplanes have been retrofitted with the fully compliant pilot and first officer seats and the general status of the program with respect to the plans to retrofit the remaining airplanes starting November 30, 1995, and every two months thereafter until May 31, 1996. This amendment is part of, and shall remain attached to Exemption No. 5704.

The affected Dornier Model 328 airplanes are as follows:

<u>Dornier Serial Number</u>	<u>U.S. Registry Number</u>
3006	N328PH
3007	N329PH
3008	N330PH
3010	N332PH
3012	N334PH
3013	N335PH
3014	N336PH
3015	N339PH
3018	N422JS
3019	N328DC
3020	N337PH
3023	N328DA
3024	N95CD
3025	N328LS
3027	N653PC
3028	N431JS
3029	N338PH
3030	N328JS
3032	N423JS
3033	N424JS
3034	N38CD
3035	N335LS
3037	N425JS
3038	N426JS
3039	N427JS
3040	TBD

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